

**IN THE CLAIMS:**

Please amend the claims as indicated below, without prejudice:

1. (Currently amended) A method for providing speech therapy comprising:

(A) displaying a model representation of a position of contact between a model tongue and mouth during speech; ~~and~~

(B) displaying a representation of a position of contact between a learner's tongue and mouth during speech; and

(C) displaying a model representation of a contact between a model lip and teeth during speech.

2. (Currently amended) The method of claim 1 further comprising ~~(e)~~ instructing the learner to mimic the model representation of the position of contact between the model tongue and mouth during speech.

3. (Original) The method of claim 2 further comprising the step of comparing the representation of the position of contact between the learner's tongue and mouth during speech with the model representation of position of contact between the model tongue and mouth during speech.

4. (Original) The method of claim 2 further comprising the step of generating a numerical score representing the closeness of fit between the representation of position of contact between the learner's tongue and mouth during speech and the model representation of position of contact between the model tongue and mouth during speech.

5. (Original) The method of claim 2 further comprising the step of providing positive reinforcement when the learner mimics the model representation of position of contact between the model tongue and mouth during speech.

6. (Original) The method of claim 5 wherein the positive reinforcement comprises computer generated congratulations.

7. (Original) The method of claim 5 wherein the positive reinforcement comprises dynamic displays on a computer monitor.

8. (Currently amended) A method for providing speech therapy comprising:

(A) displaying a model representation of a position of contact between a model tongue and mouth during speech;

(B) displaying a representation of a position of contact between a learner's tongue and mouth during speech;

(C) instructing the learner to mimic the model representation of the position of contact between the model tongue and mouth during speech; and

~~The method of claim 2 further comprising the step of~~  
(D) automatically generating learning curve plots illustrating the ability of the learner to mimic the model.

9. (Original) The method of claim 1 wherein the representations of position of contact between the learner's tongue and mouth during speech and the model representations of position of contact between the model tongue and mouth during speech are displayed on a split-screen.

10. (Original) The method of claim 2 further comprising the step of providing model acoustic representations of the speech.

11. (Original) The method of claim 10 wherein auditory mimicry accuracy between the learner and the model acoustic representation are analyzed acoustically.

12. (Original) The method of claim 11 wherein a numerical score representing the closeness of acoustic fit is generated.

13. (Original) The method of claim 10 wherein sound spectrographic displays are generated from the model acoustic representation and the learner's speech.

14. (Original) The method of claim 2 wherein the model representation is designed to exercise the learner's tongue when the learner mimics the model representation.

15. (Original) The method of claim 2 wherein the model representation is designed to instruct the learner to compensate for physical deficiencies.

16. (Original) The method of claim 1 wherein the learner is unable to overcome speech disorders through traditional auditory based therapy.

17. (Original) The method of claim 1 wherein the learner has severe to profound hearing loss.

18. (Original) The method of claim 1 wherein the learner has stroke-limited ability to control tongue movement and placement.

19. (Original) The method of claim 1 wherein the learner has limited high frequency sound perception which causes lisping.

20. (Original) The method of claim 1 wherein the learner has reduced ability to build up pressure in the mouth.

21. (Original) The method of claim 1 wherein the learner has physical abnormalities affecting the mouth and vocal tract.

22. (Original) The method of claim 1 wherein the learner has limited energy to devote to speech activity.

23. (Original) The method of claim 1 wherein the learner is learning new speech patterns after cochlear implant surgery.

24. (Original) The method of claim 1 wherein the learner has gradually deteriorating hearing loss and needs assistance to maintain speech articulation skills.

25. (Original) The method of claim 1 wherein the learner is learning a speech pattern selected from the group consisting of a foreign language and a dialect.

26. (Original) The method of claim 1 further comprising:

(C) representing the position of contact between the learner's tongue and mouth during speech by a grid of dots on a computer

screen, wherein said dots expand and change color responsive to contact between the learner's tongue and mouth.

27. (Currently amended) A method for providing speech therapy comprising:

(A) displaying a model representation of a position of contact between a model tongue and mouth during speech;

(B) displaying a representation of a position of contact between a learner's tongue and mouth during speech;

(C) representing the position of contact between the learner's tongue and mouth during speech by a grid of dots on a computer screen; and

~~The method of claim 26 further comprising:~~

(D) displaying a dental landmark on the computer screen to assist in orienting the position of contact between the learner's tongue and mouth.

28. (Original) The method of claim 26 wherein the grid of dots corresponds to sensors disposed on a sensor plate which is custom fitted in the mouth of the learner.

29. (Original) The method of claim 1 wherein the speech includes sounds, words, phrases or sentences, and wherein the sounds, words, phrases, or sentences are displayed in writing.

30. (Original) The method of claim 1 wherein the position of contact between the learner's tongue and mouth during speech is recorded.

31. (Original) The method of claim 30 wherein the learner's speech is recorded acoustically corresponding to the position of contact between the learner's tongue and mouth during speech.

32. (Original) The method of claim 1 wherein the model representation is generated by a model speaker.

33. (Original) The method of claim 32 wherein the model speaker is representative of a particular age group, gender, or language type.

Claims 34-124 (Canceled)

125. (Currently amended) A method for providing speech therapy comprising:

(A) displaying a model representation of a position of contact between a model tongue and mouth during speech;

(B) displaying a representation of a position of contact between a learner's tongue and mouth during speech;

(C) instructing the learner to mimic the model representation of the position of contact between the model tongue and mouth during speech;

(D) comparing the representation of the position of contact between the learner's tongue and mouth during speech with the model representation of position of contact between the model tongue and mouth during speech;

(E) generating a numerical score representing the closeness of fit between the representation of position of contact between the learner's tongue and mouth during speech and the model representation of position of contact between the model tongue and mouth during speech;

(F) providing positive reinforcement when the learner mimics the model representation of position of contact between the model tongue and mouth during speech; and

(G) providing model acoustic representations of the speech;

wherein the representations of position of contact between the learner's tongue and mouth during speech and the model representations of position of contact between the model tongue and mouth during speech are displayed on a split-screen;

wherein auditory mimicry accuracy between the learner and the model acoustic representation are analyzed acoustically;

wherein a numerical score representing the closeness of acoustic fit is generated;



wherein sound spectrographic displays are generated from the model acoustic representation and the learner's speech;

wherein the position of contact between the learner's tongue and mouth during speech is represented by a grid of dots on said split-screen, said dots expand and change color corresponding to contact between the learner's tongue and mouth;

wherein a dental landmark is displayed on the split-screen to help orient the position of contact between the learner's tongue and mouth;

wherein the grid of dots corresponds to sensors disposed on a sensor plate which is custom fitted in the mouth of the learner;

wherein the speech includes sounds, words, phrases or sentences, and wherein the sounds, words, phrases, or sentences are displayed in writing;

wherein the position of contact between the learner's tongue and mouth during speech is recorded; and

wherein the learner's speech is recorded acoustically corresponding to the position of contact between the learner's tongue and mouth during speech;

wherein the method further comprises displaying a model representation of a contact between a model lip and teeth during speech;

wherein the method further comprises displaying a representation of a contact between a learner's lip and teeth during speech; and

automatically generating learning curve plots illustrating the ability of the learner to mimic the contact of the model tongue and mouth and the model lip and teeth.

126. (Original) The method of claim 30 wherein the model representation is recorded.

127. (Currently amended) A method for providing speech therapy comprising:

(A) displaying a model representation of a position of contact between a model tongue and mouth during speech;

(B) displaying a representation of a position of contact between a learner's tongue and mouth during speech;

wherein the position of contact between the learner's tongue and mouth during speech is recorded;

wherein the model representation is recorded; and

~~The method of claim 126~~ further comprising replaying the recorded position of contact between the learner's tongue and mouth during speech in synchronism with the recorded model representation.

Claim 128. (Canceled)

129. (Currently amended) The method of claim ~~128~~ 1 further comprising:

(D) displaying a representation of a contact between a learner's lip and teeth during speech.

130. (New) A method for providing speech therapy comprising:

(A) displaying a model representation of a position of contact between a model tongue and mouth during speech;

(B) displaying a representation of a position of contact between a learner's tongue and mouth during speech;

(C) instructing the learner to mimic the model representation of the position of contact between the model tongue and mouth during speech; and

(D) measuring palatometric parameters of the learner.

131. (New) The method of claim 130 further comprising:

displaying a dental landmark on the computer screen to assist in orienting the contact between the learner's tongue and mouth.

132. (New) The method of claim 130 further comprising:

automatically generating learning curve plots illustrating the ability of the learner to mimic the model.

133. (New) The method of claim 130 further comprising:  
displaying a model representation of a contact between a model  
lip and teeth during speech.

134. (New) The method of claim 133 further comprising:  
displaying a representation of a contact between a learner's  
lip and teeth during speech.

135. (New) A method for providing speech therapy comprising:  
(A) displaying a model representation of a position of contact  
between a model tongue and mouth during speech;

(B) displaying a representation of a position of contact  
between a learner's tongue and mouth during speech;

wherein the position of contact between the learner's tongue  
and mouth during speech is recorded;

wherein the model representation is recorded;

further comprising replaying the recorded position of contact  
between the learner's tongue and mouth during speech in synchronism  
with the recorded model representation;

displaying a dental landmark on the computer screen to assist  
in orienting the contact between the learner's tongue and mouth;  
and

automatically generating learning curve plots illustrating the  
ability of the learner to mimic the model.

136. (New) The method of claim 135 further comprising:  
displaying a model representation of a contact between a model  
lip and teeth during speech.

137. (New) The method of claim 136 further comprising:  
displaying a representation of a contact between a learner's  
lip and teeth during speech.